

## **Fossil Fuel Divestment in India – An Exploration**

## **Executive Summary:**

Fossil fuel divestment is picking up globally with trillions of dollars moving away from fossil to non-fossil industry. The divestment is led by different institutions governments, businesses, banks, NGOs, educational institutions, multilateral institutions et al.

As a result there are increasing stranded assets in fossil fuel industry worldwide. A principle based approach towards greener future is complemented by favourable economic factors facilitated by cost-effective technology.

In India too, an important factor for increasing divestments is the techno-commercial viability of alternate sources of energy. This is best exemplified by industry action in recent times. For instance, all industry majors such as Reliance Industries, NTPC and Tata Power have announced ambitious plans of investments in green portfolio.

But the transition on a whole entails differentiated approach for it is contingent upon number of factors, chief amongst those being the availability of finance. In other words different financial institutions have adopted different trajectories and targets for divestments.

This paper is essentially a trend analysis of factors affecting divestments in fossil fuel industry in India. In that sense, it presents a macro picture of key developments, a brief discussion on vanilla trends and a deeper discussion on sub-cutaneous trends.

The purpose is to highlight an overview on how to see investment and divestment trends with respect to key stakeholders. In sum, the paper highlights increasing momentum of renewable energy finance and reducing interest in areas like coal sector financing although poor financial state of power distribution sector causes significant resistance to any meaningful transformation.

The paper also highlights key drivers and challenges for divestment and provides an insight into various instruments with regards to both. With regards to the drivers, the paper highlights arguments that underline Socially Responsible Investment Funds. For instance, plenty of studies have now shown a strong correlation between the performance of Environmental, Social and Governance (ESG) funds and positive investment returns.

Similarly ‘green investment’ or ‘sustainable finance’ have picked up because of their inherent attractiveness. In the same veneer, it discusses that the new investments in renewable energy are much more viable as compared to investments in coal-fired power especially when the cost of power generation is compared.

Global Alliance for Banking on Values (GABV) - a network of more than 60 financial institutions and 16 strategic partners operating in over 40 countries is another mechanism to deliver sustainable economic, social and environmental development using finance. In the run up to COP 26, there have been various other developments too. For instance, announcement by the Reserve Bank of India to join the Network for Greening Financial System in 2021 is a significant

development besides the move by Department of Economic Affairs, Ministry of Finance on “Developing Taxonomy for Sustainable Activities” in India.

The paper also discusses other instruments which in a normal discourse are not considered as having a bearing on sustainable business practices. For instance, United Nations Guiding Principles on Business and Human Rights (UNGPs), Corporate Social Responsibility (CSR) and National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business.

Amongst the key challenges the paper highlights lack of awareness about Green Finance, Lack of Price Advantage in Green Finance, Intra-Country Variance leading to lack of coherent outlook and shrinking fiscal space for investments or divestment opportunities. The paper finally ends with three key recommendations in order to ensure necessary checks and balances in terms of assessing the divestment and investment decisions.

These include the need to institutionalise transparency in the flow of capital through various sources of finance including debt and equity, the need to adopt Transparency – Accountability – Participatory (TAP) principles to enable financial decisions on promoting green investment, and the need to determine quality of outcomes that a particular investment generates.

While most of the arguments presented in this paper are essentially economic arguments along with key trends in the fossil and renewable industry, the paper also argues that it is equally important to draw linkages between fossil divestment and improvement in overall quality of life.

Questions regarding ‘well-being’ are complex and require protecting livelihoods in the short term and improvement in over-all quality of life in the long term. For instance, an un-calibrated approach can lead to loss of jobs for millions of coal miners due to energy transition. Hence, it is argued that transition requires a sophisticated strategy that is possible only through systems thinking.

In other words, it is through the convergence of moral and ethical principles, multi-stakeholder approaches and sound financial decisions guided by policy certainty and regulatory ease that the divestment of fossil fuel will yield in beneficial outcomes for the people of the country.

## 1. Introduction

Fossil fuel divestment has spurred as a movement globally. Divestment essentially implies the opposite of investment i.e. pulling out the money invested in the form of debt or equity through instruments like stocks, bonds or any other financial instruments. According to a few online repositories tracking divestment pledges in the fossil fuel industry, around \$ 14.58 trillion worth of investments have been divested by different institutions till date. These include governments, corporates, educational and religious institutions, philanthropic organisations and pension funds.<sup>1</sup>

Besides a large network of activists such as Rainforest Action Network, 350.org, Go Fossil Free, People and Planet, youth protesters, university faculties and even students have been undertaking systematic drives for divestment in companies that are in the business of extracting, refining, selling and making profits from fossil fuels.<sup>2</sup>

Blackrock, world's largest investor in the fossil fuel industry, has lost about 90 billion USD in the last decade by ignoring the financial risk of investing in the fossil fuel industry. Its investments in giants like Exxon, BP and Chevron Shell made more than half of these losses.

As a result there are increasing stranded assets in fossil fuel industry worldwide. A recent report by Bank of England suggests that if business-as-usual continues then assets at risk could touch about 20 Trillion USD by the 2050.<sup>3</sup>

While divestment has come to be used as a powerful economic tool to stigmatise a particular practice or regime (such as against apartheid in South Africa), there can be other economic and political reasons for the money to shift rooms. In the case of fossil fuel they are several and complex, and perhaps emanate from a simple fact that despite many countries declaring climate emergency, 80 per cent of global energy needs still come from oil, coal and gas.

This is perhaps the reason why two narratives simultaneously dominate the discourse. The first emanates from an increasing recognition of the carbon bubble. For instance, according to a recent report of the climate-related Market Risk Subcommittee (a body under the Commodity Futures Trading Commission, an independent agency of the U.S. government), climate change poses a major risk to the stability of the U.S. financial system.<sup>4</sup>

On the other hand, a 2020 report 'Banking on Climate Change' by the Rainforest Action Network, suggests that even after the Paris Agreement of 2015, global banks continued to finance the fossil fuel industry with U.S. banks dominating the landscape as top fossil fuel

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<sup>1</sup> Go Fossil Free, 1200+ Divestment Commitments, <https://gofossilfree.org/divestment/commitments/>.

<sup>2</sup> Sujatha Byravan, 'Hitting fossil fuel companies where it hurts', The Hindu, 04 November 2020, <https://www.thehindu.com/opinion/op-ed/hitting-fossil-fuel-companies-where-it-hurts/article33015942.ece>.

<sup>3</sup> Akshat Rathi, 'The Bank of England lays bare the "very real" trillion-dollar risks of climate change', Quartz, 16 April 2019, <https://qz.com/1596486/climate-change-could-cause-20-trillion-in-losses-says-bank-of-england/>.

<sup>4</sup> 'CFTC's Climate-Related Market Risk Subcommittee Releases Report', Commodity Futures Trading Commission, 09 September 2020, <https://www.cftc.gov/PressRoom/PressReleases/8234-20>.

financiers. Other than that the Royal Bank of Canada, Barclays in the U.K., the Bank of China and MUFG in Japan have dominated the fossil finance. The main fossil fuel sub-sectors are oil, gas and coal. A total of \$975 billion was the bank financing for hundred key oil, gas, and coal companies between 2016 and 2019.<sup>5</sup>

In India too, broadly there are two contradicting narratives. One suggests that fossil divestments in India are not an urgency because India's contribution to the stock of greenhouse gases is minimal. However at the same time, cheaper, better and faster technologies are disrupting the incumbents. For instance, the techno-commercial viability of alternate sources of power generation including renewables as against the uncompetitive coal-fired plants is a significant economic factor. According to some reports, the cost of power generation from renewables will be more competitive than 99% of the existing coal-fired power generation fleet by 2030.<sup>6</sup>

Nothing puts this in perspective better than the recent announcements by the industry. The oil refining giant, Reliance Industries recently announced to invest \$ 10.1 billion in green energy over the next three years in order to achieve the net-zero goal.<sup>7</sup> The company, which is also the operator of world's largest refining complex in Gujarat, followed in the footsteps of other major global oil and gas companies including Royal Dutch Shell Plc. (RDSa.L) and BP Plc. (BP.L) which have set a goal for becoming carbon-zero by 2050.<sup>8</sup>

In another swift move, the National Thermal Power Corporation (NTPC), the Government of India's thermal power company, announced a renewed target of installing 60 GW Renewable Energy by 2032, up by almost 50% from the previous 32 GW target set in October 2020.<sup>9</sup> State-owned coal mining company, the Coal India Limited also announced that its two wholly owned subsidiaries will venture into renewable energy projects. This comes after its earlier announcement to invest Rs 56.50 billion by March 2024 to develop solar power for powering its own mining operations.<sup>10</sup>

Not to miss is also the announcement by country's largest private integrated power company, Tata Power, which recently announced that it will cease to build new coal-fired power capacity.

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<sup>5</sup> Sujatha Byravan, 'Hitting fossil fuel companies where it hurts', The Hindu, 04 November 2020, <https://www.thehindu.com/opinion/op-ed/hitting-fossil-fuel-companies-where-it-hurts/article33015942.ece>.

<sup>6</sup> 'Do Not Revive Coal: Planned Asia coal plants a danger to Paris', Carbon Tracker Initiative, 30 June 2021, <https://carbontracker.org/reports/do-not-revive-coal/>.

<sup>7</sup> 'India's Reliance to invest US\$ 10.1 billion in new energy businesses', IBEF, 25 June 2021, <https://www.ibef.org/news/indias-reliance-to-invest-us-101-billion-in-new-energy-business>.

<sup>8</sup> Nidhi Verma and Sudarshan Varadhan, 'India refining giant Reliance unveils \$10-bln green energy plan', Reuters, 24 June 2021, <https://www.reuters.com/business/energy/reliance-invest-101-bln-new-energy-business-over-3-years-2021-06-24/>.

<sup>9</sup> 'NTPC doubles 2032 renewables target to 60 GW', Financial Express, 22 June 2021, <https://www.financialexpress.com/industry/ntpc-doubles-2032-renewables-target-to-60-gw/2275802/#:~:text=State%20run%20power%20producer%20NTPC,end%20of%20the%20target%20period>.

<sup>10</sup> Rakesh Ranjan, 'Coal India plans to invest over Rs. 56 billion in 14 solar projects by March 2024', Mercom India, 25 November 2020, <https://mercomindia.com/coal-india-plans-invest-solar-projects/>.

The company's 'Strategic Intent 2025' calls for up to 70 per cent of new capacity additions to come from solar, wind and hydro by 2025.<sup>11</sup>

Apart from these recent announcements, various corporates, financial institutions, asset managers, state governments and philanthropic organisations have committed to reduce their carbon footprint by pulling out money from "dirty coal" into "clean and green energy".

That said a deeper exploration of the trends, undercurrents and ecosystem of fossil landscape in India is in order to better understand the divestment undercurrents. For this a multi-layer trend analysis is necessary.

## **2. Key Trends Shaping Fossil Industry**

### **2.1 Vanilla Trends**

#### **A. Coal**

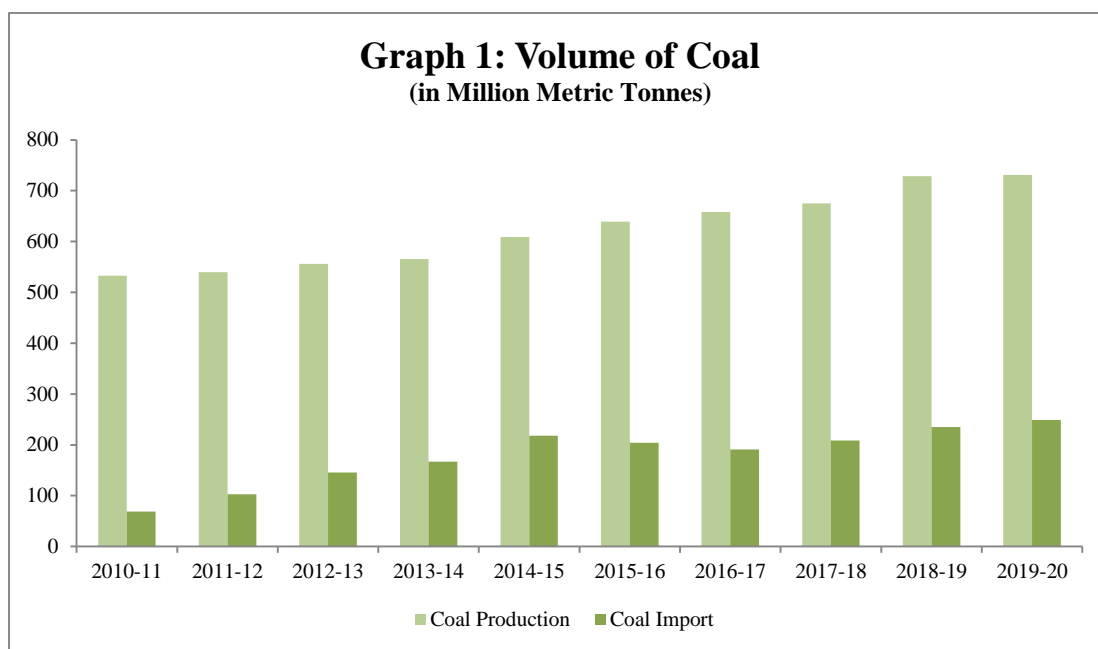
Coal production has been rising over the years, as depicted in the trend highlighted in Graph 1. Of the total coal production in India in 2019-20, almost 82% of was produced by government-owned Coal India Limited which is the world's largest coal mining company. The share of captive generation by private players like Adani Group, Jindal Steel and Power Limited and JSW Energy Limited accounted for around 8% of the total production in 2019-20.<sup>12</sup>

However, as the production of domestic coal is increasing, the import dependence to meet the domestic demand has also increased over the years. The graph also highlights how India's coal import dependence has risen and reached around 34% in 2019-20.

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<sup>11</sup> 'Tata Power to focus on clean energy, won't build new coal-fired plants: Report', Energy World, The Economic Times, 23 April 2019, <https://energy.economictimes.indiatimes.com/news/power/tata-power-to-focus-on-clean-energy-wont-build-new-coal-fired-plants-report/69005159>.

<sup>12</sup> Ministry of Coal, Government of India, <http://coal.nic.in/major-statistics/production-and-supplies>.



Source: Ministry of Coal

As per India's Hydrocarbon Vision, the Government of India plans to phase out import of coal by the year 2025.<sup>13</sup> For this, various policy decisions have been taken in the recent past, including the commercialization of coal production for non-captive use.<sup>14</sup> This policy push is likely to attract more investments into the domestic production of coal.

The recent report by Carbon Tracker titled 'Do Not Revive Coal' also highlights that 80% of the world's planned coal-fired thermal power capacity rests in Asia with India's pipeline capacity of 60GW being the second highest in Asia.<sup>15</sup>

## B. Oil

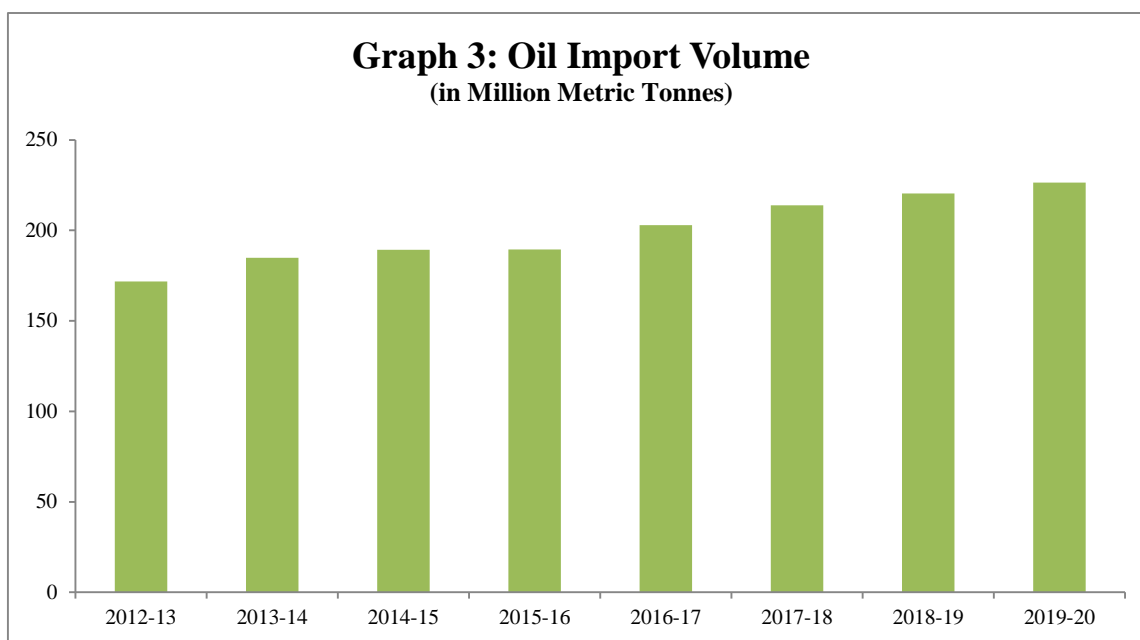
The story in the oil sector is somewhat similar. India is the world's second largest oil importer with over 80% dependence on imported crude oil.<sup>16</sup> (Graph 2)

<sup>13</sup> 'India Hydrocarbon Vision – 2025', <http://petroleum.nic.in/sites/default/files/vision.pdf>.

<sup>14</sup> Press Release, 'Unleashing Coal: New Hopes for Atmanirbhar Bharat – Government of India to launch auction for commercial coal mining on 18<sup>th</sup> June 2020', Ministry of Coal, 11 June 2020, <https://pib.gov.in/PressReleasePage.aspx?PRID=1630919>.

<sup>15</sup> 'India, China, Japan among countries responsible for 80% of world's planned coal plants', Wion, 30 June 2021, <https://www.wionews.com/india-news/india-china-japan-among-countries-responsible-for-80-of-worlds-planned-coal-plants-394974>.

<sup>16</sup> 'India's oil import dependency jumps to 84 percent', Economic Times, 05 May 2019, <https://economictimes.indiatimes.com/industry/energy/oil-gas/indias-oil-import-dependence-jumps-to-84-pc/articleshow/69183923.cms?from=mdr>.



Source: Statista

At the same time, India has one of the world's largest oil refining capacities. The Union Government plans to reduce the import dependence on crude oil from over 80% now to 10% in the year 2022.<sup>17</sup> This signals increased oil exploration domestically and attracting investments for the same. A major policy push for this was the Hydrocarbon Exploration Licensing Policy of 2016 which provided for uniform licensing coupled with open acreage policy.<sup>18</sup>

### C. Natural Gas

The share of natural gas in meeting India's primary energy needs has been stagnant around 6% over the past few years.<sup>19</sup> In the power sector, more than 50% of the gas-fired power plants are reeling under financial stress.<sup>20</sup> However, the Government of India plans to increase the share of natural gas in primary energy consumption to 10% from the 6% currently by the year 2025.<sup>21</sup> This may imply more investments in the natural gas sector, despite the cost-economics being stacked up against it, especially in the power sector.

<sup>17</sup> 'India Hydrocarbon Vision – 2025', <http://petroleum.nic.in/sites/default/files/vision.pdf>.

<sup>18</sup> Resolution, Ministry of Petroleum and Natural Gas, Government of India, 30 March 2016, <http://petroleum.nic.in/sites/default/files/HELP.pdf>.

<sup>19</sup> 'India Energy Outlook 2021', International Energy Agency, 2021, <https://www.iea.org/reports/india-energy-outlook-2021>.

<sup>20</sup> 'India Energy Outlook 2021', International Energy Agency, 2021, <https://www.iea.org/reports/india-energy-outlook-2021>.

<sup>21</sup> 'India to see natural gas share rise to 10 percent by 2025: GAIL director', Economic Times, 22 August 2020, <https://energy.economictimes.indiatimes.com/news/oil-and-gas/india-to-see-natural-gas-share-rise-to-10-per-cent-by-2025-gail-director/77686272>.



What is apparent from the above is that investments in the domestic fossil industry are imminent in order to avoid stranded assets domestically. The next section provides a critical review of key trends that exist beneath the apparent layer.

## 2.2 Key Trends Shaping Fossil Industry at Sub-Cutaneous level

As reported by the International Energy Agency (IEA) Energy Outlook 2021, the pace of investments in renewable energy has been accelerating very rapidly in the recent years. In fact, 2020 was the fifth consecutive year in which the overall investments in renewable sector exceeded the fossil fuel sector. The year 2020 also saw a slump in investments in coal and oil sector, largely owing to the pandemic and fall in demand generally. For instance, investments in coal supply were close to \$10 billion on an average during the years of 2017-2019 but were estimated to fall by nearly 15% in the year 2020.<sup>22</sup>

On the other hand, investments on renewables during the period of 2015-2019 grew by almost 60% and reached around \$18 billion in 2019. Although, clean energy investments were estimated to fall in 2020 marginally, global sentiments rode high.<sup>23</sup>

Investments in the coal sector, primarily for power generation, came from various multi-lateral development banks. However, owing to the global shift to renewables, several such institutions announced restrictions in their lending and investment portfolios. These restrictions have been either towards financing new coal projects or refinance of existing projects. Some of the prominent multilateral banks restricting their investments in coal sector are highlighted in Table 1.

Table 1: Multilateral Development Banks Restricting Investments in Coal			
SN	Multilateral Development Banks	First Restriction	Latest Restriction
1	World Bank	2013	September 2020
2	European Investment Bank	July 2013	November 2019
3	Asian Infrastructure Investment Bank		January 2017
4	New Development Bank (BRICS Bank)		July 2018
5	International Finance Corporation (part of the World Bank Group)		September 2020
6	Asian Development Bank		October 2018
7	European Bank for Reconstruction and Development		December 2018

Source: *Finance is Leaving Thermal Coal*, IEEFA, 2021

Besides those listed in Table 1, some other prominent names include Japan Bank for International Cooperation (JICA), European Investment Bank (EIB), Citi Bank, JP Morgan Chase & Co., and Standard Chartered amongst others.<sup>24</sup>

<sup>22</sup> 'India Energy Outlook 2021', International Energy Agency, 2021, <https://www.iea.org/reports/india-energy-outlook-2021>.

<sup>23</sup> 'India Energy Outlook 2021', International Energy Agency, 2021, <https://www.iea.org/reports/india-energy-outlook-2021>.

These institutions have adopted different means to ensure climate-responsible financing and investing. The IFC, for instance, in 2020, laid out the approach to greening equity investments in financial institutions.<sup>25</sup> This approach, as a pursuit to reduce its exposure of coal to zero or near-zero by 2030, is premised on the green equity principle. This suggests that while the Bank has completely excluded any direct financing to coal-based investments through a ring-fenced structured approach of lending, it cannot adopt a similar approach in case of subordinate instruments of equity. For that purpose, IFC's existing portfolio as on 30<sup>th</sup> March 2020 comprised of almost 85% of debt investments which are completely ring-fenced with zero exposure to coal.

For the remaining 15% equity investment, the IFC may have certain exposure by means of investing in commercial banks, insurance companies and other such institutions which might have in-turn funded coal projects.<sup>26</sup> For instance, the following box depicts two case studies from Mahan Coal Plant in Singarauli District of Jharkhand in India and Rampal Power Plant in Bangladesh in which NTPC of India has a 50% share.

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<sup>24</sup> 'Finance is Leaving Thermal Coal', Institute for Energy Economics and Financial Analysis, 2021, <https://ieefa.org/finance-leaving-thermal-coal/>.

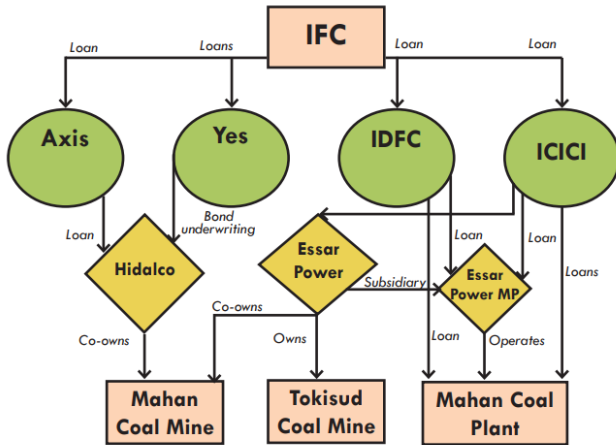
<sup>25</sup> 'IFC's Approach to Greening Equity Investments in Financial Institutions', International Finance Corporation, September 2020, <https://www.ifc.org/wps/wcm/connect/05541643-0001-467d-883c-5d7a127ffd57/IFC+Greening+Report+Sept+2020.pdf?MOD=AJPERES&CVID=niscDfR&ContentCache=NONE&CACHE=NONE>.

<sup>26</sup> 'IFC's Approach to Greening Equity Investments in Financial Institutions', International Finance Corporation, September 2020, <https://www.ifc.org/wps/wcm/connect/05541643-0001-467d-883c-5d7a127ffd57/IFC+Greening+Report+Sept+2020.pdf?MOD=AJPERES&CVID=niscDfR&ContentCache=NONE&CACHE=NONE>.

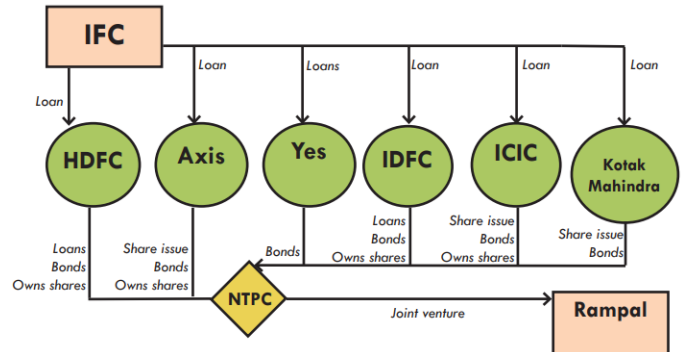
## *Not-in-my-Name*

### How World Bank Finances Coal Projects in Countries

Mahan Coal Plant, Jharkhand (India)



Rampal Power Plant, Bangladesh (50% NTPC Share)



In both the case studies highlighted here, the IFC provided loan to various intermediary banks for supporting their immediate lending requirements. Even though the World Bank pledged in 2013 not to fund coal-based projects, it appears that it continued thereafter through opaque network of equity funding and lending to commercial banks. Even though IFC maintains that its indirect loan funding which is exposed to such coal-based projects is only 15% of its portfolio, analysis by Inclusive Development International shows that between 2011 and 2015 financial intermediaries received \$40 billion in funding from IFC which represented almost half of its total portfolio.

Also, such loans to intermediaries in the case of Mahan and Rampal Power Plants were given for reasons such as “growing need for disbursement in infrastructure” and “capital requirements to finance growth”. It was these same banks who immediately went out for financing these said plants.

*“The IFC’s support for the Mahan and Rampal Power Plants is a microcosm for how it funds coal around the world.”*

Source: ‘Outsourcing Development: Lifting the Veil on the World Bank Group’s Lending Through Financial Intermediaries’, Inclusive Development International, 2016.

On the other hand, Indian banks are also gearing up to get onboard the global sustainability drive even though a part of their portfolio is committed to fossil industry. Table 2 summarises the sustainability policies of Indian Banks along with their respective exposures to fossil financing.

<b>Table 2: Indian Banking Sector and Sustainable Finance</b>		
<b>Bank</b>	<b>Summary of Sustainability Policies</b>	<b>Exposure to Coal Projects</b>
State Bank of India	<ul style="list-style-type: none"> <li>• First among the Public Sector Banks to develop a sustainability roadmap for its operations</li> <li>• Sustainable banking can be classified into two streams, viz. managing the environmental and social impact of the Bank's own operations and helping manage the impact of the organisations and activities that it finances</li> <li>• Policy on Sustainability and Business Responsibility</li> <li>• Signatory of Carbon Disclosure Project</li> <li>• Environmental Responsibilities - minimizing SBI's environmental footprint. Investing in renewable energy and creating awareness of the importance of environmental sustainability</li> <li>• Sustainability strategy will revolve around the formulation of a detailed renewable energy (RE) procurement and deployment plan for all of SBI's operations across the country along with an offset strategy to cover any remaining emissions that are not handled by the RE procurement strategy, followed by implementation using third party suppliers</li> </ul>	<ul style="list-style-type: none"> <li>• State Bank of India's exposure to the coal and power sector was INR 2063.07 billion which was 8.8% of its lending portfolio for 2018-19</li> <li>• One of the top ten shareholders of Coal India Limited</li> <li>• Lender to NTPC</li> <li>• Lender to a couple of controversial power plants including Sasan Ultra Mega Power Plant (Reliance) and Tata Mundra Power Plant</li> </ul>
Infrastructure Development Finance Corporation (IDFC)	<ul style="list-style-type: none"> <li>• Mainstreamed environmental and social risk management into its business operations</li> <li>• Environmental and social policy states, "ensures that lending is environmentally sustainable"</li> <li>• Signatory of Equator Principles<sup>27</sup></li> </ul>	<ul style="list-style-type: none"> <li>• IDFC's exposure to the coal and power sector was INR 116.62 billion which was 7.2% of its lending portfolio for 2018-19</li> </ul>

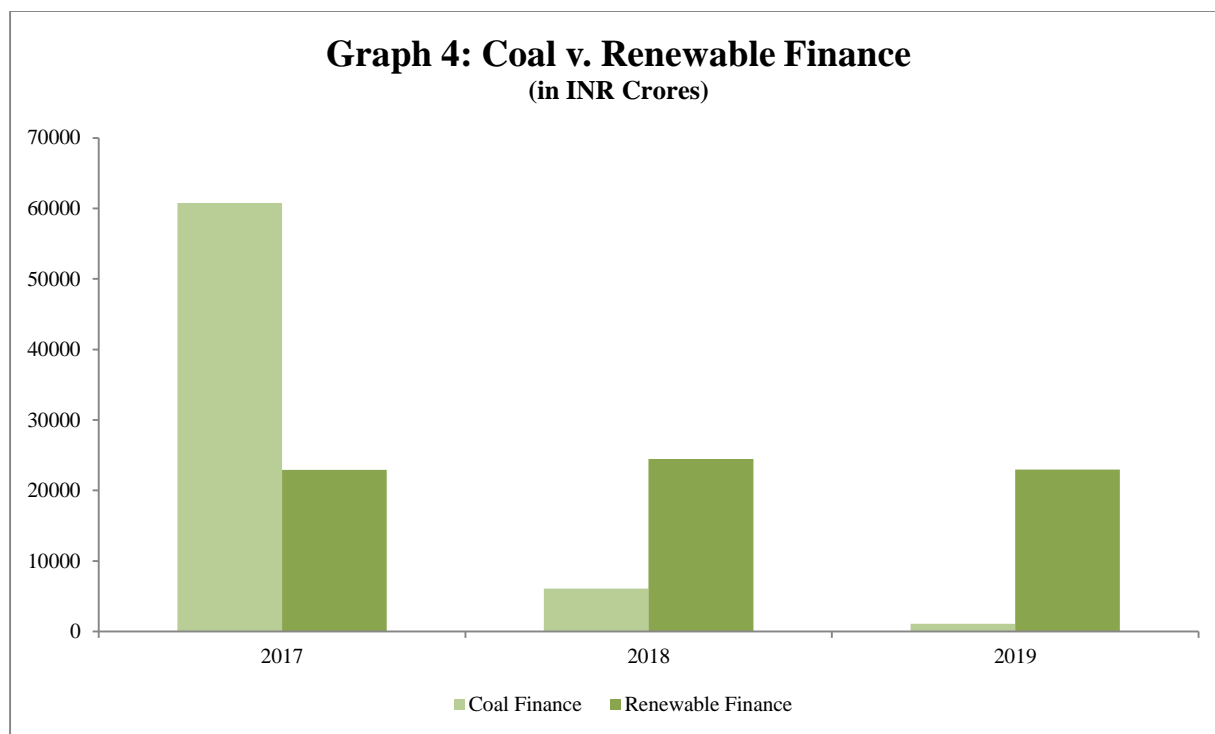
<sup>27</sup> The [Equator Principles](#) (EPs) is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects and is primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making.

ICICI	<ul style="list-style-type: none"> <li>• NVG Disclosures state that the principle 6 of the disclosure guidelines<sup>28</sup> is not applicable for the bank given the nature of its business</li> </ul>	<ul style="list-style-type: none"> <li>• ICICI Bank's exposure to the coal and power sector was INR 384.75 billion which was 3.05% of its lending portfolio for 2018-19</li> </ul>
Axis Bank	<ul style="list-style-type: none"> <li>• Policy on environmental management states, "shall strive to go beyond compliance requirements and enhance its environmental performance, wherever possible" and "aim to influence business partners."</li> <li>• Promote environmental sustainability and equitable growth through sustainable lending practices</li> </ul>	<ul style="list-style-type: none"> <li>• Axis Bank's exposure to the coal and power sector was INR 272.867 billion, which was 3.09% of its lending portfolio for 2018-19</li> <li>• Lender to controversial Sasan Ultra Mega Power Plant</li> </ul>
Punjab National Bank	<ul style="list-style-type: none"> <li>• Avoids financing to the industries which are causing harm to the environment and gives preference to the green projects which are environmental friendly and promote usage of clean energy</li> <li>• Avoids business that can have negative impacts on the ecosystem and the society</li> <li>• Promotes financing of clean energy initiatives and using environment friendly operations</li> </ul>	<ul style="list-style-type: none"> <li>• PNB's exposure to the coal and power sector was INR 3721.30 billion which was 6.8% of its lending portfolio for 2018-19</li> <li>• PNB has financed controversial coal and power projects such as the Sasan Ultra Mega Coal Power Project (UMPP)</li> <li>• Lender to Coal India Limited</li> </ul>

Source: 'Banking on India's Coal Conundrum', Fair Finance India, 2019

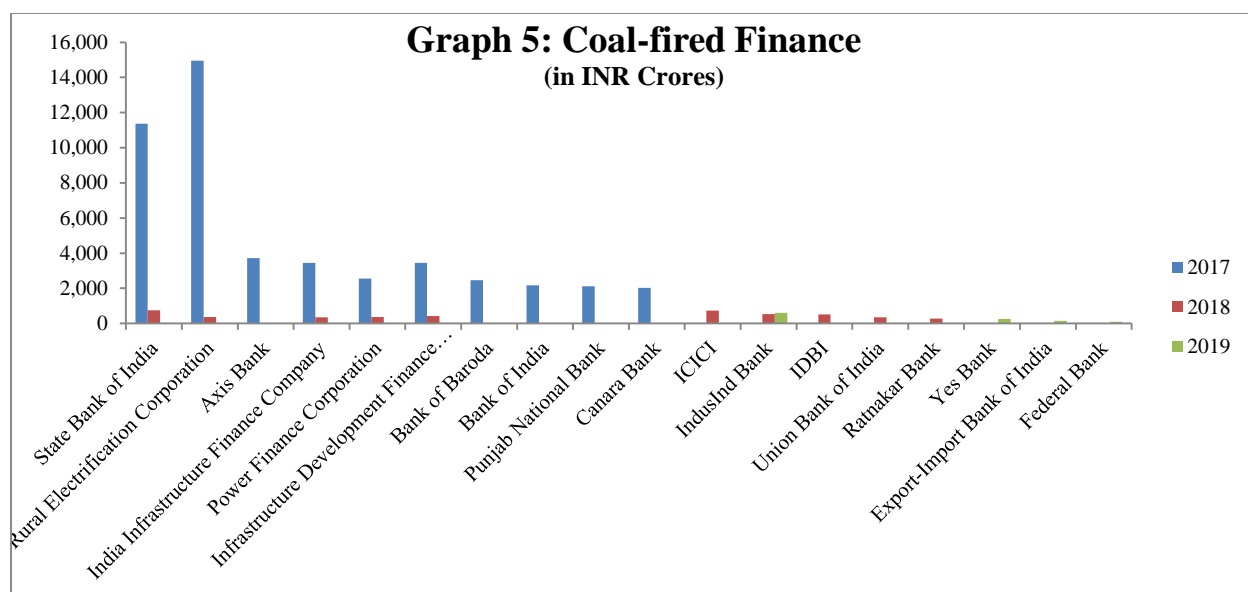
In another report titled 'Coal vs Renewable Finance in India' by Centre for Financial Analysis and Climate Trends, significant financing to coal-based and renewable-based projects have been analysed for the three consecutive years i.e. 2017, 2018 and 2019. A summary of trends of coal and renewable financing is depicted in the following chart:

<sup>28</sup> Businesses should respect, protect, and make efforts to restore the environment.  
[https://www.mca.gov.in/Ministry/pdf/NationalGuideline\\_15032019.pdf](https://www.mca.gov.in/Ministry/pdf/NationalGuideline_15032019.pdf)



*Source: 'Coal v. Renewable Finance Analysis', Centre for Financial Accountability*

In the year 2017, the report covers 78 project finance deals including 72 coal-fired and renewable projects between the periods of 1<sup>st</sup> January 2017 to 31<sup>st</sup> December 2017. According to the report, the top ten lenders to coal sector in India included both state-backed lenders and commercial banks. Graph 5 represents the prominent lenders and the pattern of lending over the three consecutive years towards coal-fired projects.



Source: 'Coal v. Renewable Finance Analysis', Centre for Financial Accountability, 2017, 2018 and 2019

Of the total lending considered in the study which amounts to Rs 60,767 crores, 72% was for refinancing existing projects while 28% was for a new credit line to new coal-fired power projects. As reported, at least two of the 12 power plants which received funding in 2017 were stressed.<sup>29</sup>

In the year 2018, the report assessed 52 project finance deals covering 54 projects of coal-fired plant as well as renewable energy plants amounting to Rs 30,254 crores. Almost 80% of these finances were for renewable energy projects - a major shift from the fossil-dominated financing in the previous year. Similar to the scenario in 2017, most of the financers of coal-fired capacity in 2018 were government-owned institutions as opposed to the renewable segment where the top-5 financers were commercial banks.<sup>30</sup> Close to 80% of the finance of coal-fired plants was for refinancing purpose while nearly Rs 1200 crores was for primary finance for construction of 1.98 GW Ghatampur Power Plant in Uttar Pradesh in India.

In the year 2019, the financing to coal-fired projects reduced by almost 98% compared to 2017. As opposed to the previous two years, the share of state financing in 2019 sharply came down to Rs 150 crores from India's EXIM bank, notably, it was around Rs 4000 crores in the previous year.<sup>31</sup> Of the total lending of Rs 1100 crores in 2019, Rs 700 crores were for refinancing the

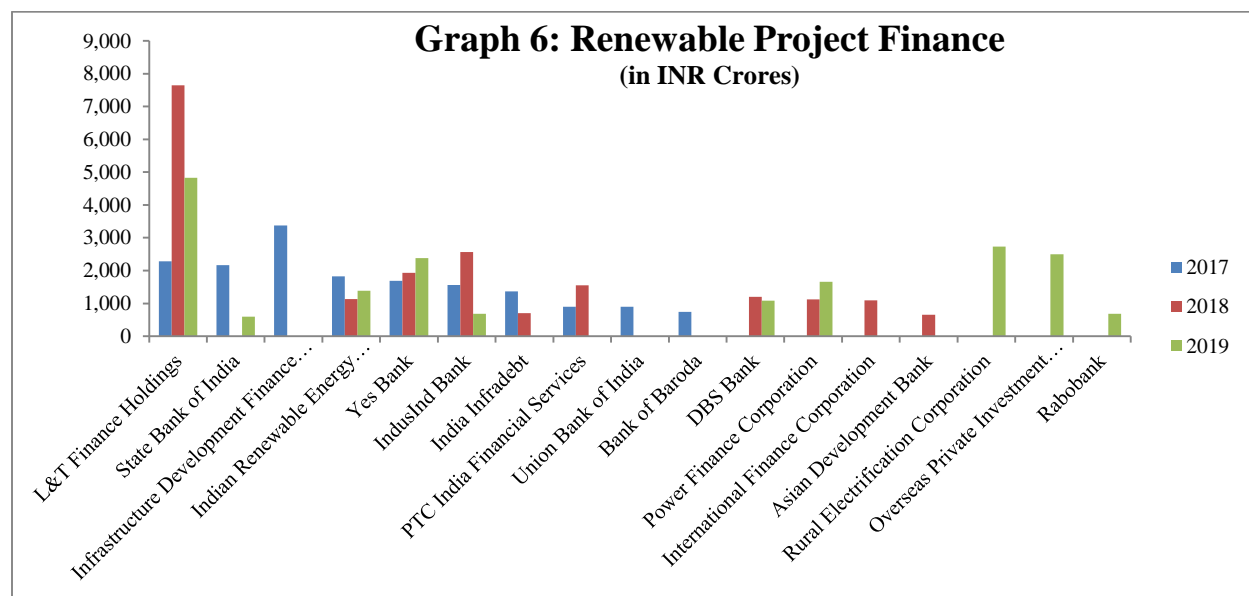
<sup>29</sup> 'India 2017: Coal vs Renewables Financial Analysis', Centre for Financial Accountability, 19 June 2018, <http://www.cenfa.org/wp-content/uploads/2018/06/2017-COAL-vs-RENEWABLE-Report.pdf>.

<sup>30</sup> 'India 2018: Coal vs Renewables Financial Analysis', Centre for Financial Accountability, 16 August 2019, <https://www.cenfa.org/wp-content/uploads/2019/08/India-2018-Coal-vs-Renewables-Finance-Analysis.pdf>.

<sup>31</sup> 'India 2019: Coal vs Renewables Financial Analysis', Centre for Financial Accountability, November 2020, [https://www.cenfa.org/wp-content/uploads/2020/11/COAL-VS-RENEWABLES-REPORT\\_NOV-24-FINAL.pdf](https://www.cenfa.org/wp-content/uploads/2020/11/COAL-VS-RENEWABLES-REPORT_NOV-24-FINAL.pdf).

JSW Energy’s Barmer Power Plant in Rajasthan while the remaining Rs 400 crore was the primary finance for NTPC’s new project in Barh, Bihar.<sup>32</sup>

Similarly, Graph 6 represents the lending for renewable projects by prominent lenders in India for the three consecutive years of 2017, 2018 and 2019.



Source: ‘Coal v. Renewable Finance Analysis’, Centre for Financial Accountability, 2017, 2018 & 2019

For the year 2019, majority of this finance was for solar power (68%) and almost 76% of the funding was for new projects rather than refinancing the existing ones.<sup>33</sup> In 2018, almost 80% of the finance was for new projects, unlike the case of coal-fired projects.<sup>34</sup> Similarly in 2019, while on one hand the financing for coal-fired projects reduced drastically, the overall pattern for renewable project financing was positive and incremental.

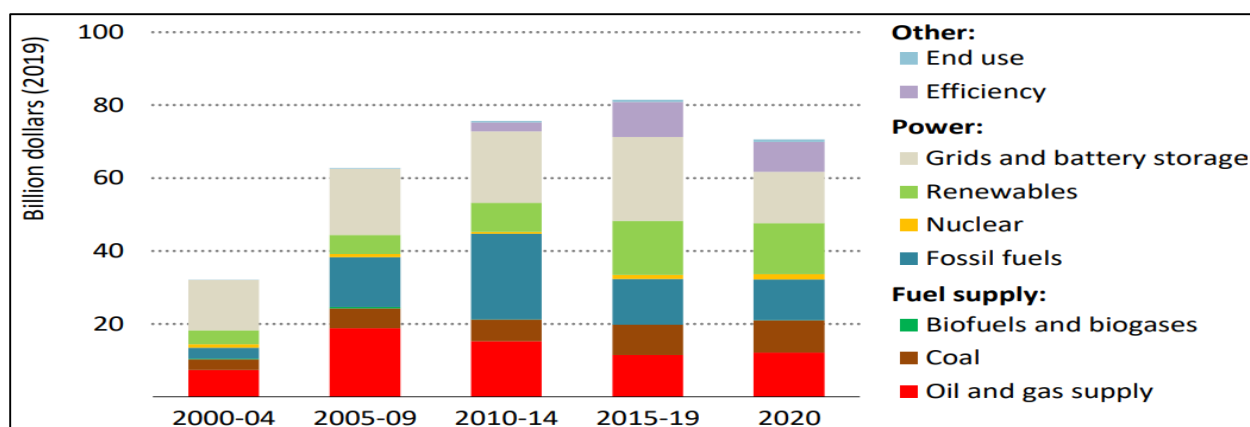
While these three reports highlight some of the significant developments in coal and renewable energy financing in India, there are other macro trends which offer interesting insights into the fossil fuel divestment landscape. For instance, the following figure by the IEA’s India Energy Outlook 2021 highlights the average trend of investments for a slew of categories of fossil fuel, renewable and other linked sub-sectors.

<sup>32</sup> ‘India 2019: Coal vs Renewables Financial Analysis’, Centre for Financial Accountability, November 2020, [https://www.cenfa.org/wp-content/uploads/2020/11/COAL-VS-RENEWABLES-REPORT\\_NOV-24-FINAL.pdf](https://www.cenfa.org/wp-content/uploads/2020/11/COAL-VS-RENEWABLES-REPORT_NOV-24-FINAL.pdf).

<sup>33</sup> ‘India 2017: Coal vs Renewables Financial Analysis’, Centre for Financial Accountability, 19 June 2018, <http://www.cenfa.org/wp-content/uploads/2018/06/2017-COAL-vs-RENEWABLE-Report.pdf>.

<sup>34</sup> ‘India 2018: Coal vs Renewables Financial Analysis’, Centre for Financial Accountability, 16 August 2019, <https://www.cenfa.org/wp-content/uploads/2019/08/India-2018-Coal-vs-Renewables-Finance-Analysis.pdf>.





Source: India Energy Outlook, 2021

There are two key takeaways from this trend. One, that there has been an overall fall in the year 2020 with respect to investments in almost every sub-sector of the energy sector. This can be primarily attributed to the reduction of key economy-wide investment indicators owing to the pandemic. In other words, the overall investments which remained constant at around \$80 billion annually during the years of 2015 to 2019 fell by 15% in 2020.

Secondly, the trend of investment in renewables and decline in fossil fuel financing since 2010 has been a clear indicator of the pace at which energy transition is happening. Renewable investments grew by almost 60% over the period 2015 to 2019 and reached about \$18 billion. As discussed earlier, 2020 was the fifth consecutive year in which investments in renewable power surpassed the investments in fossil-fuel based power generation.<sup>35</sup>

These investment and divestment highlights indicate the increasing momentum of renewable finance and reducing interest in coal sector financing, particularly in the energy sector. However, there are various challenges in this transition. For instance, the poor financial state of power distribution sector causes significant resistance to any meaningful transformation of the power sector. To put this in perspective, close to 16 billion USD is owed by discoms to the generation companies, of which almost 1.1 billion USD is pending revenues for Renewable Energy Generators.<sup>36</sup>

Besides the above, there are several other financial, techno-economic, social, legal, ecological and other relevant factors associated with fossil fuel investment/divestment. A short commentary on these factors is presented below.

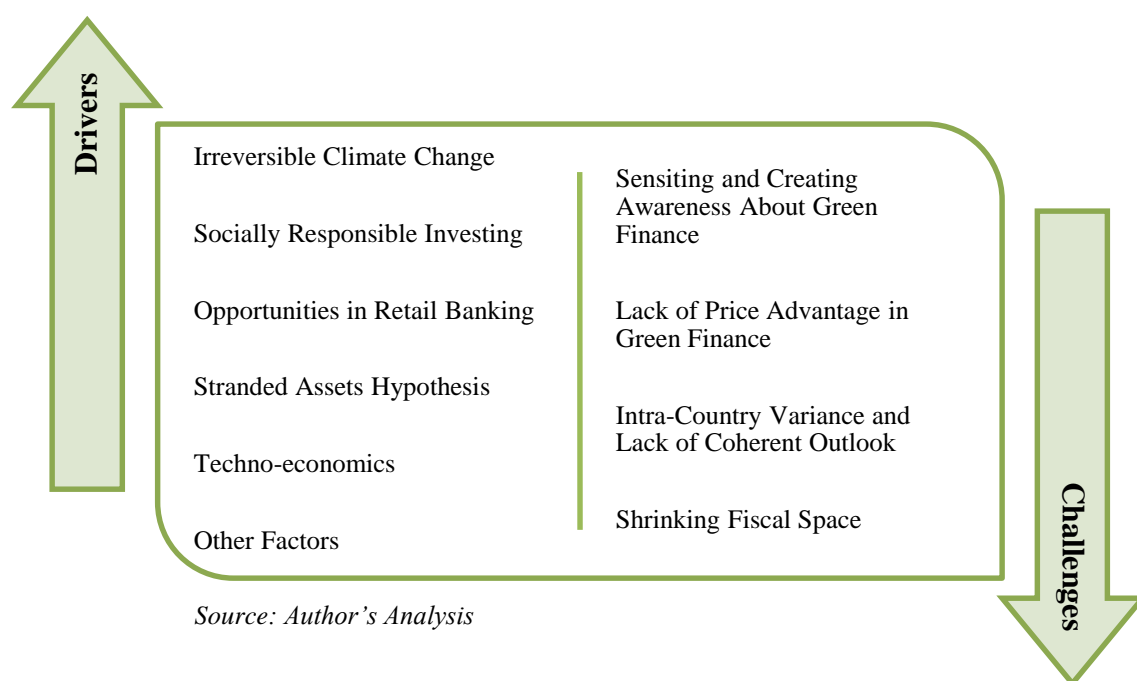
<sup>35</sup> 'India Energy Outlook 2021', International Energy Agency, 2021, <https://www.iea.org/reports/india-energy-outlook-2021>.

<sup>36</sup> 'India 2019: Coal vs Renewables Financial Analysis', Centre for Financial Accountability, November 2020, [https://www.cenfa.org/wp-content/uploads/2020/11/COAL-VS-RENEWABLES-REPORT\\_NOV-24-FINAL.pdf](https://www.cenfa.org/wp-content/uploads/2020/11/COAL-VS-RENEWABLES-REPORT_NOV-24-FINAL.pdf).

### 3. Drivers & Challenges of Fossil Fuel Divestment

Identified as the fastest growing divestment campaign in history – the fossil fuel divestment has mainly arisen in the backdrop of a sustained period of new investments in non-fossil fuels, which could potentially take the world past the international targets to limit global warming to a 2C rise.

However, the fossil fuel divestments have not had only a moral underpinning. There is also a strong economic and financial logic for the same. At the same time, there are various challenges typically from Indian perspective. This section outlines both drivers and challenges to the fossil fuel divestment movement, as highlighted in the Figure.



#### A. Drivers for Divestment

##### ■ Irreversible Climate Change

In order to meet the target of limiting global warming to a 2C rise and preferably below 1.5C, between two-thirds and four-fifths of fossil fuels will need to remain un-extracted. In 2013, the IPCC had suggested that the world burns about 50 billion tonnes of greenhouse gases every year<sup>37</sup> and if the same continues at current levels, India will have spent the carbon budget within 15 to 25 years. This would lead to irreversible climate change that will cause rising sea, flooding, draughts, rising disease, increased conflict and refugee crises. Therefore, to ensure that basic

<sup>37</sup> Emma Howard, 'A beginner's guide to fossil fuel divestment', The Guardian, 23 June 2015, <https://www.theguardian.com/environment/2015/jun/23/a-beginners-guide-to-fossil-fuel-divestment>.

tenets of environmental morality and justice are met, it is imperative for green financing and fossil fuel divestment to be institutionalised.

- Push towards Socially Responsible Investment Funds

The Covid-19 pandemic has highlighted fault lines that have forced the global community to consider societal shift towards sustainability. This is accompanied by a growing narrative that environmental and social considerations need to play a bigger role in investment decisions. However, even before the pandemic, fragility of the existing economic model was well recognised and the search for better alternatives had started.

A 2019 report by Bain & Company states that nearly 80% of global investors focus more on sustainability now than they did five years back.<sup>38</sup> This is because plenty of studies have now shown a strong correlation between the performance of Environmental, Social and Governance (ESG) funds and positive investment returns. ESG funds are those funds whose asset allocation mostly includes shares and bonds of companies that are evaluated based on the factors of environmental, social, and governance<sup>39</sup>.

Facilitating such developments are also new consumer preferences. For instance, millennials are twice as likely as the overall population to buy products from sustainable companies.<sup>40</sup> Further, the financial case for fossil fuel divestment is also strong. It is seen that investors who dumped holdings in fossil fuel companies have outperformed those that remain invested in them.<sup>41</sup> As per some sources, investors who divested are expected to have earned an average return of 13% a year since 2010 compared to 11.8% yearly return earned by conventional investors.<sup>42</sup>

For a country like India which aspires of becoming a US\$ 5 trillion economy by 2024, these shifts are all the more significant to note particularly because a significant challenge for India to realise such objectives is the risk from climate change. A study measuring the effects of climate

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<sup>38</sup> Kiki Yang et al, 'Private Equity Investors Embrace Impact Investing', Bain & Company, 2019, [https://www.bain.com/contentassets/3ff71feadbfb4649bb4ae7c9a279226e/bain\\_brief\\_private\\_equity\\_investors\\_embrace\\_impact-investing.pdf](https://www.bain.com/contentassets/3ff71feadbfb4649bb4ae7c9a279226e/bain_brief_private_equity_investors_embrace_impact-investing.pdf).

<sup>39</sup> <https://cleartax.in/s/esg-funds>

<sup>40</sup> Kinson Lo, 'How 2020 accelerates generational shift towards sustainable investing', Private Equity Wire, 08 December 2020, <https://www.privateequitywire.co.uk/2020/12/08/293268/how-2020-accelerates-generational-shift-towards-sustainable-investing>.

<sup>41</sup> Tom Sanzillo *et al*, 'The Financial Case for Fossil Fuel Divestment', Sightline Institute and Institute for Energy Economics and Financial Analysis, July 2018, <http://ieefa.org/wp-content/uploads/2018/07/Divestment-from-Fossil-Fuels-The-Financial-Case-July-2018.pdf>.

<sup>42</sup> Patrick Collinson, 'Fossil fuel-free funds outperformed conventional ones, analysis shows', The Guardian, 10 April 2015, <https://www.theguardian.com/environment/2015/apr/10/fossil-fuel-free-funds-out-performed-conventional-ones-analysis-shows>.

change on GDP per capita by country estimated that global warming has caused the Indian economy to be 31% smaller than it would have otherwise been.<sup>43</sup>

Another driver for divestments is alternative sources of finance such as ‘green investment’ or ‘sustainable finance’ which makes them inherently attractive. This is because such investments are transparent i.e., one knows where the money is raised and where it is going to be deployed, and how that will create assets or capacity which can provide a positive environmental outcome. In other words, it is the transparency around the use of proceeds that makes them attractive for investors interested in greening their portfolios.

As green financial instruments become more popular, better understood and evident, their demand is also going up. Green bonds, for example, reached a USD trillion worth of issuance globally in 2020. This happened within a decade after these instruments hit the market. It only shows that investors see these instruments as beneficial for their risk mitigation strategies, capital protection and client reporting, while borrowers or issuers get the tightening of price and investor diversification. Complementing this, are other capital market instruments such as credit enhancement schemes, aggregation and securitisation, blended finance, and real estate/infrastructure investment trusts.<sup>44</sup>

#### ▪ Opportunities in Retail Banking

Retail banks can play a big role in the mass adoption of green projects as they are deeply rooted locally and serve both businesses and individuals. Such projects can be anchored around tangibles like green buildings and habitats, clean transportation, pollution prevention and energy-efficiency avenues in general. The shift in the attitudes and behaviours of retail consumers towards the impact of their actions on the environment can be leveraged by banks to fulfil their fiduciary relationships. With the Indian retail banking still evolving, there is ample opportunity to integrate environmental incentives in mainstream banking products such as business or project loans as well as housing and vehicle credit.<sup>45</sup>

#### ▪ Possibility of Stranded Assets

The concept of ‘carbon bubble’ has been used by regulators, financial companies and campaigners to describe the over-valuation of stocks in coal, gas and oil reserves owned by fossil fuel companies around the world.<sup>46</sup> This is because fossil fuel related assets are likely to face

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<sup>43</sup> Srishti Choudhary, ‘Indian economy 31% smaller than what it would have been without global warming – Study’, LiveMint, 25 April 2019, <https://www.livemint.com/news/india/indian-economy-31-smaller-than-what-it-would-have-been-without-global-warming-1556186995798.html>.

<sup>44</sup> <https://www.orfonline.org/research/tackling-air-pollution-at-the-sub-national-level-the-case-of-rajasthan/>

<sup>45</sup> Shreyans Jain, ‘Financing India’s Green Transition’, Issue Briefs and Special Reports, Observer Research Foundation, 27 January 2020, [https://www.orfonline.org/research/financing-indias-green-transition-60753/#\\_ednref7](https://www.orfonline.org/research/financing-indias-green-transition-60753/#_ednref7).

<sup>46</sup> Emma Howard, ‘A beginner’s guide to fossil fuel divestment’, The Guardian, 23 June 2015, <https://www.theguardian.com/environment/2015/jun/23/a-beginners-guide-to-fossil-fuel-divestment>.

devaluation as the world transitions to a low-carbon economy, which implies that any new investment in fossil fuel infrastructure should ideally be discouraged.

Shares invested in fossil fuel companies are essentially incompatible with international agreements on climate change.<sup>47</sup> If investments continue to prop such assets it could potentially unleash a new global economic crisis as they are likely to turn ‘stranded’.<sup>48</sup> To illustrate, one needs to look back at the investment binge between 2003 and 2012. Nothing short of a bubble, this binge was fuelled by excess global liquidity and easy bank credit. This resulted in the Indian businesses adding massive capacities based on over-optimistic domestic estimates and Chinese demand. But with the global and domestic downturn hitting demand, the excesses of that period meant high NPAs for financial institutions and massive debt distress for big industrial houses<sup>49</sup>.

Above it all, there is also a risk of loss of reputation of companies – something that can potentially be more harmful than just financial loss.<sup>50</sup>

#### ■ Techno-economics of Coal v. Renewable

In a recent report by Carbon Tracker titled “Do Not Revive Coal”, the techno-economic feasibility and comparison between coal-fired power plants and renewable plants was done for different countries and regions. On a global scale, it was found that 70% of the global operating coal fleet relies on subsidies and other means of policy support, in the absence of which they will most likely become unprofitable.

Furthermore, the new investments in renewable energy are much more viable as compared to investments in coal-fired power especially when the cost of power generation is compared.<sup>51</sup> It is also estimated that the competitiveness of renewables against the operating fleet of coal will only increase in the years to come. In other words, while new renewables are already more competitive than 77% of operating coal fleet, it can further improve to 98% by 2026 and 99% by 2030, given that the current pollution regulations and climate policies continue.<sup>52</sup>

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<sup>47</sup> Nick Cunningham, ‘HSBC Advises Clients Against Fossil Fuel Investment’, Time, 29 April 2015, <https://time.com/3840005/hsbc-clients-fossil-fuel-investment/>.

<sup>48</sup> Theodor F Cojoianu *et al*, ‘Does the fossil fuel divestment movement impact new oil and gas fundraising?’, Journal of Economic Geography, January 2021, <https://academic.oup.com/joeg/article/21/1/141/6042790>.

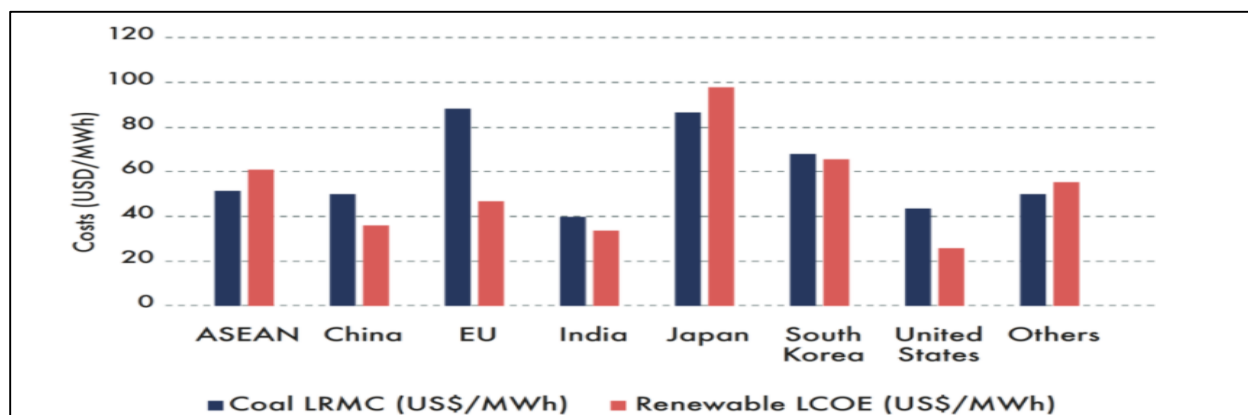
<sup>49</sup> <https://www.abhishek-indicc.com/Articles%20and%20Blogs/the-new-indian-economy-posing-a-conundrum-for-the-state-markets-and-the-democracy/>

<sup>50</sup> Emma Howard, ‘A beginner’s guide to fossil fuel divestment’, The Guardian, 23 June 2015, <https://www.theguardian.com/environment/2015/jun/23/a-beginners-guide-to-fossil-fuel-divestment>.

<sup>51</sup> ‘Do Not Revive Coal: Planned Asia coal plants a danger to Paris’, Carbon Tracker Initiative, 30 June 2021, <https://carbontracker.org/reports/do-not-revive-coal/>.

<sup>52</sup> ‘Do Not Revive Coal: Planned Asia coal plants a danger to Paris’, Carbon Tracker Initiative, 30 June 2021, <https://carbontracker.org/reports/do-not-revive-coal/>.

The figure below also shows that the Long Run Marginal Cost (LRMC)<sup>53</sup> of coal power is higher than the Levelised Cost of Energy (LCOE)<sup>54</sup> of renewable-based power in almost all major global economies, including India.<sup>55</sup>



Source: 'Do Not Revive Coal' Report, Carbon Tracker Initiative

Furthermore, if the Net Present Value of coal-fired investments in the pipeline are considered for India, almost 86% of the planned coal capacity is likely to be unviable in the wake of falling prices of renewables.<sup>56</sup> This sentiment is also backed by another analysis by IEEFA which suggests that much of the 33GW of planned coal-fired capacity currently in the construction stage and additional 29 GW in the pre-construction stage is likely to end up as stranded in the wake of competitive prices of renewables.<sup>57</sup>

#### ■ Other Global and National Drivers

Globally, the adoption of principles of responsible and sustainable finance has gained significant traction in the recent years. This includes the United Nations supported Principles of Responsible Investment which encourages investors to enhance returns and better manage risks in the long-term.<sup>58</sup> Global Alliance for Banking on Values (GABV) - a network of more than 60 financial institutions and 16 strategic partners operating in over 40 countries is another mechanism to deliver sustainable economic, social and environmental development using finance.<sup>59</sup> The United

<sup>53</sup> LRMC is the value of the energy it produces minus the ongoing costs of running the plant, i.e., fuel costs, variable operating and management (O&M) costs, fixed O&M costs, and any carbon costs that might be imposed by policy.

<sup>54</sup> LCOE is the value of the energy it produces minus the costs of running it (LRMC) and the capital cost of building it.

<sup>55</sup> 'Do Not Revive Coal: Planned Asia coal plants a danger to Paris', Carbon Tracker Initiative, 30 June 2021, <https://carbontracker.org/reports/do-not-revive-coal/>.

<sup>56</sup> 'Do Not Revive Coal: Planned Asia coal plants a danger to Paris', Carbon Tracker Initiative, 30 June 2021, <https://carbontracker.org/reports/do-not-revive-coal/>.

<sup>57</sup> Kashish Shah, 'New Coal-fired Power Plants in India: Reality of Just Numbers?', Institute for Energy Economics and Financial Analysis, June 2021, <https://ieefa.org/wp-content/uploads/2021/05/New-Coalfired-Power-Plants-in-India-Reality-or-Just-Numbers-June-2021.pdf>.

<sup>58</sup> Principles for Responsible Investing, <https://www.unpri.org/>.

<sup>59</sup> Global Alliance for Banking on Values, <https://www.gabv.org/about-us>.

Nations Guiding Principles on Business and Human Rights (UNGPs) formulated in the year 2011 is another instrument important and relevant instrument having a bearing on sustainable business practices.<sup>60</sup>

Over past decade or so, India too has formulated several instruments and policies that mandate responsible and sustainable business conduct. The Voluntary Guidelines on Corporate Social Responsibility were issued in 2009 for mainstreaming the concept of responsible business in India.

These guidelines were subsequently revised as 'National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business, 2011 (NVGs)' after extensive consultations with business, academia, civil society organisations and the government.<sup>61</sup> Securities and Exchange Board of India (SEBI), in 2012, through its listing regulations mandated the top 100 listed companies in India (by market capitalization) to file annual Business Responsibility Reports (BRRs) from an environmental, social and governance angle.<sup>62</sup> This formed the basis of such business entities to showcase their performance on the indicators and 9 principles laid out in the NVGs. In 2019 the Ministry of Corporate Affairs has revised the NVGs and formulated the National Guidelines on Responsible Business Conduct (NGRBC)<sup>63</sup>.

India was also amongst the first countries that incorporated and mandated the principles of Corporate Social Responsibility (CSR) in the year 2013 with the passage of the Companies Act. It stipulated that companies with a net worth of ₹500 crore or more, or turnover of ₹1,000 crore or more, or a net profit of ₹5 crore or more during the immediately preceding financial year, to spend 2 per cent of the average net profits of the immediately preceding three years on CSR activities.<sup>64</sup>

In the run up to COP 26, there have been various other developments too. For instance, announcement by the Reserve Bank of India to join the Network for Greening Financial System in 2021 is a significant development.<sup>65</sup> The network is a group of Central Banks and Supervisors which seeks to share best practices and mobilise finance for mainstreaming the transition towards a sustainable economy.

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<sup>60</sup> 'Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework', United Nations Human Rights, Office of the High Commissioner, 2011, [https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr\\_en.pdf](https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf).

<sup>61</sup> 'National Voluntary Guidelines on Social, Environmental & Economic Responsibilities of Business', Ministry of Corporate Affairs, Government of India, 2011, [https://www.mca.gov.in/Ministry/latestnews/National\\_Voluntary\\_Guidelines\\_2011\\_12jul2011.pdf](https://www.mca.gov.in/Ministry/latestnews/National_Voluntary_Guidelines_2011_12jul2011.pdf).

<sup>62</sup> Business Responsibility Reports, Securities and Exchange Board of India, 13 August 2012, [https://www.sebi.gov.in/legal/circulars/aug-2012/business-responsibility-reports\\_23245.html](https://www.sebi.gov.in/legal/circulars/aug-2012/business-responsibility-reports_23245.html).

<sup>63</sup> <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1568750>

<sup>64</sup> Companies Act, 2013, [https://www.mca.gov.in/Ministry/pdf/CompaniesActNotification2\\_2014.pdf](https://www.mca.gov.in/Ministry/pdf/CompaniesActNotification2_2014.pdf).

<sup>65</sup> Press Release, 'RBI joins Network for Greening the Financial System', Reserve Bank of India, 29 April 2021, [https://www.rbi.org.in/Scripts/BS\\_PressReleaseDisplay.aspx?prid=51496](https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=51496).



Months before this development, the Department of Economic Affairs, Ministry of Finance, Government of India also set up a Working Group on “Developing Taxonomy for Sustainable Activities” in India.<sup>66</sup> These developments are encouraging policy signals on financing the sustainable transition.

## B. Challenges in Divesting

### ▪ Sensitising and Creating Awareness about Green Finance

Another major challenge which persists, especially in the Indian context, is the need to sensitise India’s financial sector to the importance and benefits of green finance. India’s transition to a low carbon sustainable economy requires massive investments in climate mitigation and adaptation. However, a major barrier in this effort, is the lack of an agreed definition of Green Finance in India. In the absence of a clear definition of green finance and what constitutes ‘green’, decision making is misled, and meaningful analysis hindered. Thus, a formal definition needs to be the first step in developing a green finance strategy in India.<sup>67</sup>

### ▪ Lack of Price Advantage in Green Finance

Indian companies have been unable to tap into the pool of green funds in comparison to the international financial markets. This is because of two reasons as argued in a recent analysis. First is the lack of awareness and the other is due to the fact that 80 per cent of the green funds raised have gone to renewable energy. The poor financial health of distribution utilities results in low rating of the developers, which in turn raises the cost of finance.<sup>68</sup>

### ▪ Intra-Country Variance and Lack of Coherent Outlook

There is also huge variance between the per capita emissions by various cities of India. According to a report by UN Habitat, Gurgaon, which has the highest per capita emissions of around 2 tonnes of CO<sub>2</sub> per capita, emits around 10 times more CO<sub>2</sub> than an average person in Boudh district (Odisha), the least per capita emitter district in India.<sup>69</sup> In such a scenario, seeding a coherent sustainable outlook for a country as a whole is a complicated task.

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<sup>66</sup> Through Letter of Invitation to Members of the Working Group. Information could not be found in public domain.

<sup>67</sup> Labanya Prakash Jena and Dhruba Purkayastha, ‘Accelerating Green Finance in India: Definitions and Beyond’, Climate Policy Initiative, June 2020, [https://www.climatepolicyinitiative.org/wp-content/uploads/2020/07/Accelerating-Green-Finance-in-India\\_Definitions-and-Beyond.pdf](https://www.climatepolicyinitiative.org/wp-content/uploads/2020/07/Accelerating-Green-Finance-in-India_Definitions-and-Beyond.pdf).

<sup>68</sup> M Ramesh, ‘Why aren’t Indian companies warming to green bonds?’, Business Line, 15 August 2019, <https://www.thehindubusinessline.com/specials/clean-tech/why-arent-indian-companies-warming-to-green-bonds/article29091086.ece>.

<sup>69</sup> ‘Emissions Gap Report 2020’, United Nations Environment Programme, 09 December 2020, <https://www.unep.org/emissions-gap-report-2020>.



- **Shrinking Fiscal Space for Investments or Divestment Opportunities**

Another linked factor risking divestment from fossil industry is the macro-economic stability and fiscal prudence. There are few factors that need consideration here.

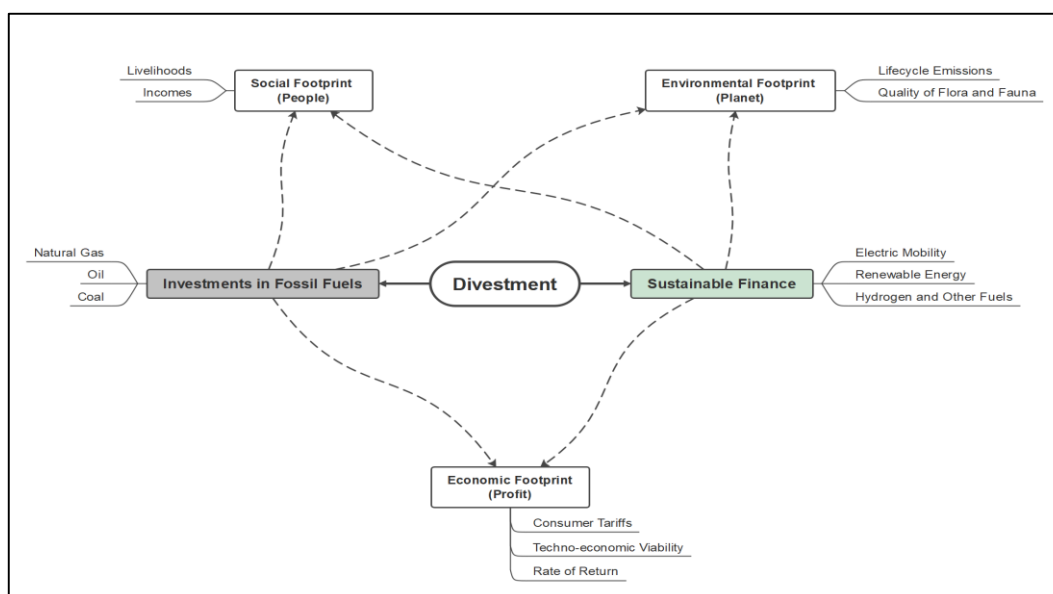
Firstly, the fiscal space of the Union and State Governments has been shrinking over the years, with Covid striking a deeper blow. This is mainly attributed to falling revenues from taxation and other sources. As a result, it also affects new asset creation which in turn negatively affects private investments. Put together, this adversely impacts energy transition despite admirable announcements and renewable energy policy targets.

Secondly, given the increasing momentum towards renewables, the newer investments in the fossil fuel sector are largely driven by the government agencies. This is evident from the fact that while new renewable investments are from public as well as private agencies almost 84% of the coal-fired capacity under pipeline is sponsored by State Generation Companies, NTPC and NLC India. This in medium to long term is likely to increase the financial woes of the utilities, sector and the government.

Finally, India is going through a structural demand crisis and increasing income inequality. In such a scenario political space to undertake transformative projects shrinks unless the big capital from the private sector backs it. For now, there are signals that big corporations are increasing their 'green' portfolios but this needs careful calibration so that state finances improve on one hand and demand problem is addressed jointly by public and the private sector.

#### 4. A Systems View of Fossil Fuel Divestment: Inherent Trade-offs and Opportunities

What is clear from the discussion is that the financial decisions of investments or divestments in the fossil-fuel sector and the renewable energy sector are not isolated events. They are deeply connected with not only the economic causes and consequences but also social and



*Source: Author's Analysis*

environmental aspects. This linkage is represented by means of a systems diagram.

While most of the arguments presented in this paper are essentially economic arguments along with key trends in the fossil and renewable industry, it is equally important to draw linkages between fossil divestment and improvement in overall quality of life. Well-being of people is often not included in economic arguments. The systems diagram above shows an explicit correlation with human well-being.

At the same time, questions regarding ‘well-being’ are complex and require protecting livelihoods in the short term and improvement in over-all quality of life in the long term. For instance, an un-calibrated approach can lead to loss of jobs for millions of coal miners due to energy transition. Hence, transition requires a sophisticated strategy.

With these complications in mind, the next section puts forth there broad recommendations for the divestment trends to become more inclusive, cost-effective and sustainable.

## **5. Recommendations**

In order to ensure necessary checks and balances in terms of assessing the divestment and investment decisions, the following recommendations can be adopted by the global financial community. These include:

### **A. Tracking Money**

The first step is to institutionalise transparency in the flow of capital through various sources of finance including debt and equity. This can be done by the financial institutions adopting transparency frameworks or by the effective oversight of financial regulators which can keep a trace of every penny flowing through their financial system.

### **B. Adopting T-A-P Principles**

The next recommendation pertains to adoption Transparency – Accountability – Participatory (TAP) principles. This implies that any financial decision of promoting green investment or fossil fuel investment should be transparent in its origin, source and flow. It should be accountable for whatever impacts it might have on the actual ground-level situation and fiduciary responsibilities be exercised in such cases. Finally, the financial decision should be a participatory one where the parties to the decision should be the community and varied stakeholders rather than merely the shareholders.

### **C. Quality of Finance**

Finally, any investment or divestment should be adjudged on the basis of the quality of outcomes that it generates. The intended objective and targeted beneficiaries should be clearly spelt out and financial institutions should be held accountable for achieving those standards against a pre-determined set of qualitative as well as quantitative indicators of the envisaged outcomes.

These recommendations are conditional upon the exercise of concepts like ethical and responsible business practice, just transition and inclusivity of financial and economic decisions. It is through the convergence of moral and ethical principles, multi-stakeholder approaches and sound financial decisions guided by policy certainty and regulatory ease that the divestment of fossil fuel will yield in beneficial outcomes for the people of the country.